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EXAMINER

CASCA, FRED A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/700,483	Applicant(s) AOYAMA, AKIO	
	Examiner FRED A. CASCA	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on March 24, 2008. Claims 1-73 are still pending in the present application. **This action is Final.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-73 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ebenshpanger (US Pub. No. 2005/0245250 A1), in view of Guo et al (US 6982949 B2).

Referring to claim 1, Ebenshpanger discloses a method of collecting information used for adjustments with an information collecting server in a radio communication system connected to at least one mobile radio terminal for performing user communications (abstract and figures 1A-2A), comprising:

in said mobile radio terminal, monitoring a communication status of a user communication and detecting as a trigger when said communication status has satisfied a predetermined condition (Figures 1A-2B, paragraphs 4, 14, "disconnect detector", "indicator that the cellular telephone has been disconnected");

Ebenshpanger further discloses a mobile station sending information to an information collecting server and in the information collecting server recording information received from the mobile terminal (Figures 2B-2C and paragraph 53, note that the base station (server) receives an indication about disconnection and sends a message to PSTN 220, where information has to be recorded in order to be sent to PSTN).

Ebenshpanger does not specifically disclose acquiring a reception status of a radio signal, acquiring a coordinate position of said mobile radio terminal and sending measured information including the information collecting server, and recording said measured information including reception status and position information, in the format claimed by applicant.

However, acquiring a reception status of a radio signal (e.g., RSSI), and acquiring a position of mobile radio terminal (e.g., via triangulation or GPS) are conventional in the field of cellular and wireless communication, as Guo discloses them.

Guo discloses acquiring a reception status of a radio signal (abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67), and acquiring a position of mobile radio terminal (col. 2, lines 58-67, col. 1, lines 40-66 and col. 2, lines 7-25, “cell boundaries”, note acquiring position information (e.g., position relative to cell boundaries are used in the handoff process). An advantage of acquiring signal status and position is determine weak radio areas, where signal strength is the weakest, so that such weak signal area could be prevented.

It would have been obvious to one of the ordinary skills in the art to modify the method of Ebenshpanger by incorporating the teachings of Guo as claimed, for the purpose of preventing call disconnection in weak signal areas.

Referring to claim 2, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose the predetermined condition comprises the occurrence of a forced disconnection of the user communication (abstract, Figures 1A-2B, paragraphs 4, 14, “disconnect detector”, “indicator that the cellular telephone has been disconnected”).

Referring to claim 3, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose the predetermined condition comprises the occurrence of a handover failure (Guo, abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67).

Referring to claim 4, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose predetermined condition comprises the lowering of a throughput of said user communication below a predetermined threshold value (Guo, abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67, col. 16, lines 3-39).

Referring to claim 5, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose predetermined condition comprises a call which is made (Guo, abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67, note that the handoff inherently takes place when a call is in progress, otherwise the process would be a cell selection).

Referring to claim 6, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose comprising the steps of in said information collecting server, sending value information indicative of a value to be given for said measured information which is provided, to said mobile radio terminal when said measured information is received; and in said mobile radio terminal, displaying the value indicated by said value information when said value information is received (Ebenshpanger, paragraph 14, “disconnect detector, which causes a display indicator to be generated on the display of the cellular telephone”, Duo, abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67, note that sending value information, monitoring signals and manipulating these signal are processes involved in the handoff procedure).

Referring to claim 7, the combination of Ebenshpanger/Guo discloses a method according to claim 1, and further disclose said radio communication system comprises a CDMA radio communication system (Guo, col. 1, lines 54-67, col. 2, lines 25-45, “CDMA”).

Referring to claims 8, 9, 10 and 11, claim 8, 9, 10 and 11 define a method reciting features analogous to the features of the method of claims 1, 2, 6 and 7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 8-11 (please see the rejection of claims 1, 2, 6 and 7 above).

Referring to claims 12-19, claims 12-19 define a method reciting features analogous to the features of the method of claims 1-7 respectively (as rejected above).

Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 12-19 (please see the rejection of claims 1-7 above).

Referring to claims 20-26, claims 20-26 define a system reciting features analogous to the features of the method of claims 1-7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 20-26 (please see the rejection of claims 1-7 above).

Referring to claims 27-30, claims 27-30 define a system reciting features analogous to the features of the method of claims 1, 4, 6 and 7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 27-30 (please see the rejection of claims 1-7 above).

Referring to claims 31-35 and 36-37, claims 31-35 and 36-37 define a system reciting features analogous to the features of the method of claims 1-7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 31-35 and 36-37 (please see the rejection of claims 1-7 above).

Referring to claims 39-45, claims 39-45 define a system reciting features analogous to the features of the method of claims 1-7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 39-45 (please see the rejection of claims 1-7 above).

Referring to claims 46-48, claims 46-48 define a method reciting features analogous to the features of the method of claims 1, 6 and 7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 46-48 (please see the rejection of claims 1, 6 and 7 above).

Referring to claims 49-55, claims 49-55 define a radio mobile terminal reciting features analogous to the features of the method of claims 1-7 respectively (as rejected above). Thus, the combination of Ebenshpanger/Guo discloses all elements of claims 49-55 (please see the rejection of claims 1-7 above).

Referring to claim 36, the combination of Ebenshpanger/Guo discloses a system according to claim 31, and further disclose the information collecting server sends said trigger information simultaneously to the at least one mobile radio terminal based on a load status on a radio circuit (paragraph 14, "display indicator").

Referring to claims 56, 58, 60, 62, 64, 66, 68, 70 and 72, the combinations of Ebenshpanger/Guo disclose every thing in claims 1, 8, 12, 20, 27, 31, 39, 46, and 49 and inherently disclose that the reception status includes a received signal quality and intensity (Ebenshpanger, Figures 2B-2C and paragraph 53, Guo, abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67).

Referring to claims 57, 59, 61, 63, 65, 67, 69, 71 and 7, the combinations of Ebenshpanger/Guo disclose every thing in claims 1, 8, 12, 20, 27, 31, 39, 46, and 49 and further disclose acquiring coordinate information by using GPS (abstract, figures 2-10, and col. 1, lines 40-52, col. 3, lines 58-67).

Response to Arguments

4. Applicant has amended independent claims 1, 8, 12, 20, 27, 31, 39 and 46 replacing the word "position" with "coordinate position". Examiner notes that the "position" of a mobile station is in fact the "coordinate position" as the GPS position of

devices are determined by their geographic coordinates and then mapped on a GPS navigator monitor. Further, applicant has not traversed the rejection of claims rejected in the previous office action, thus, the rejection of 27 November 2007 is maintained.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617